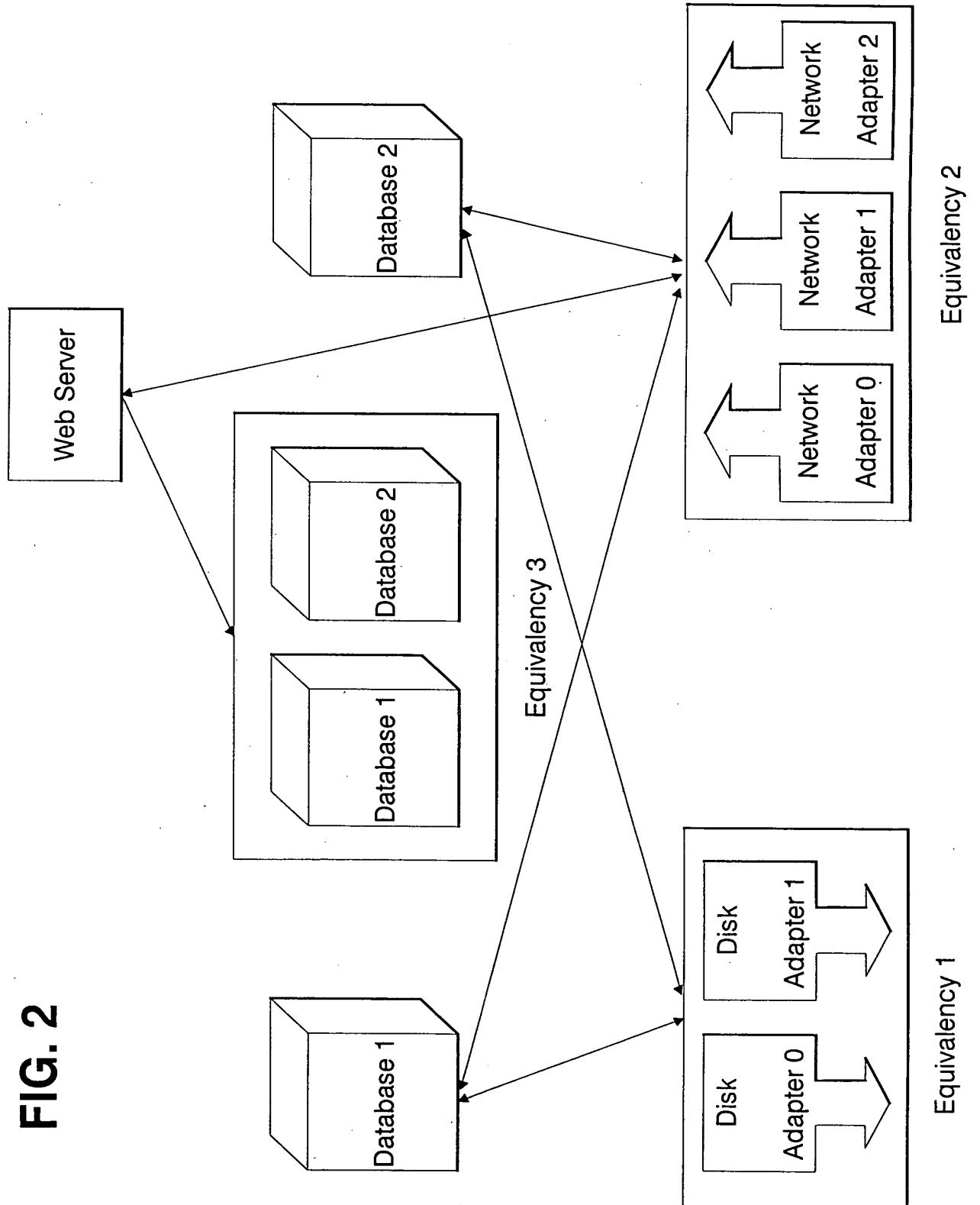


FIG. 1

FIG. 2



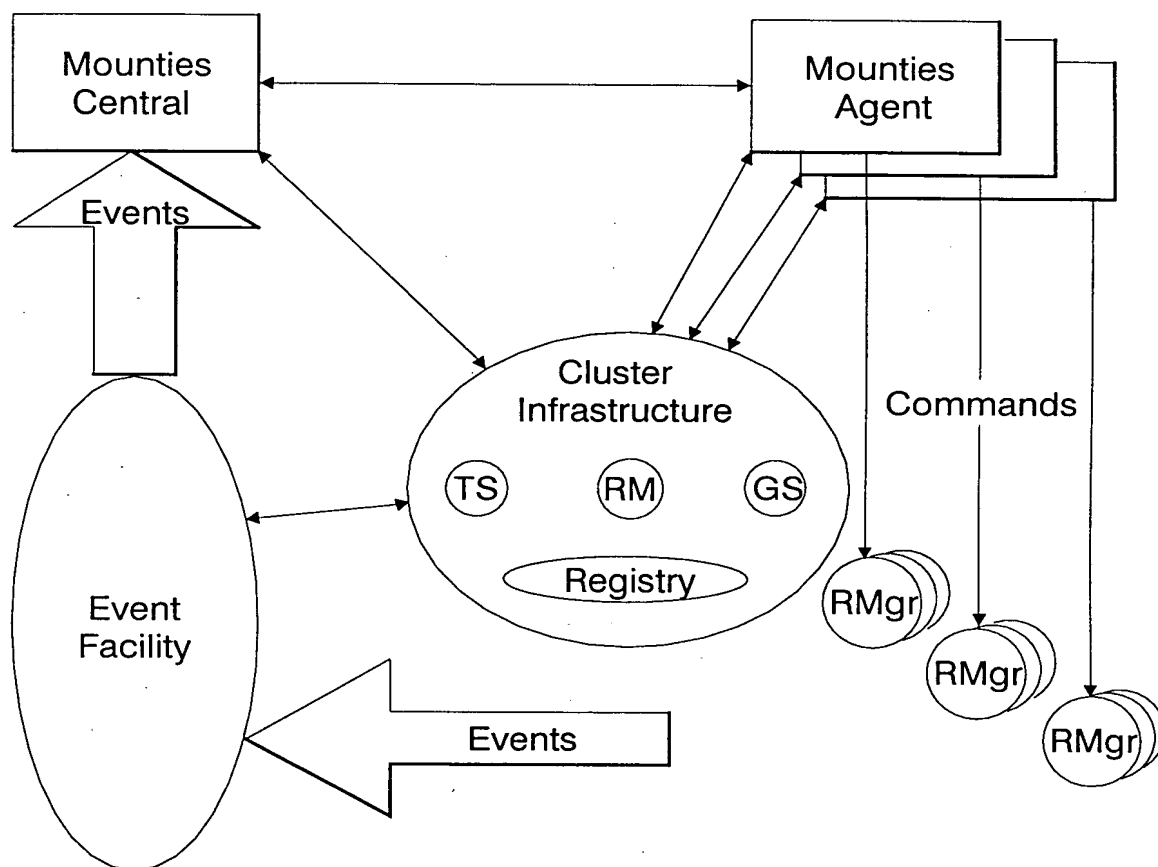


FIG. 3

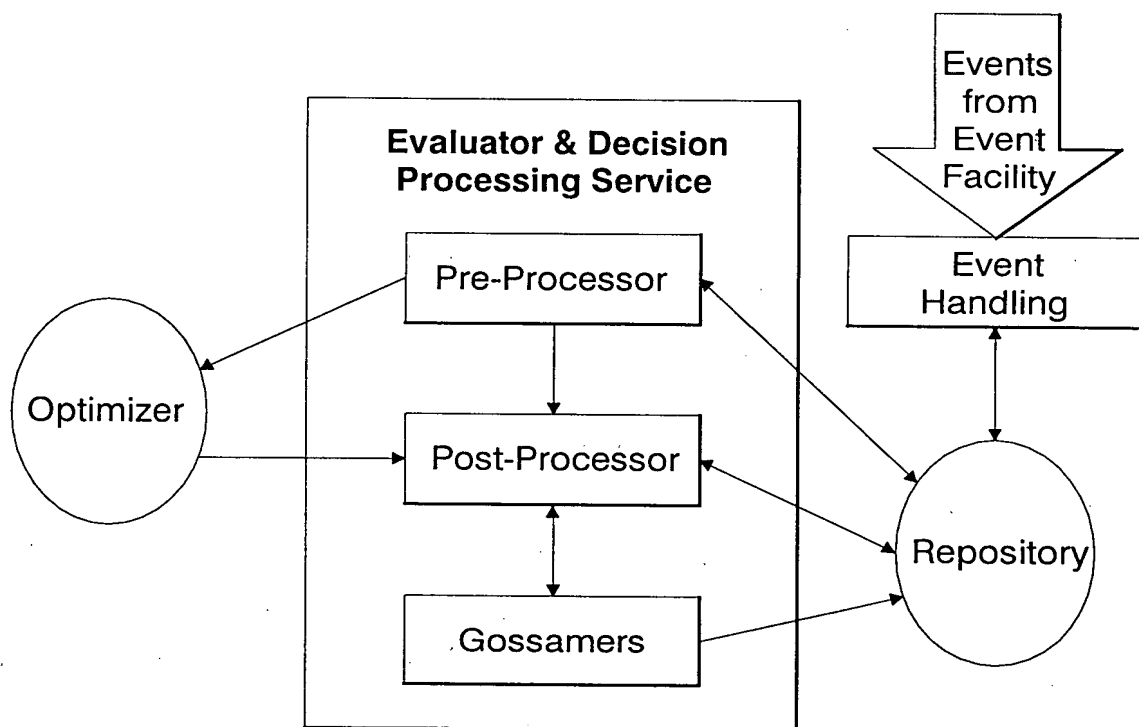
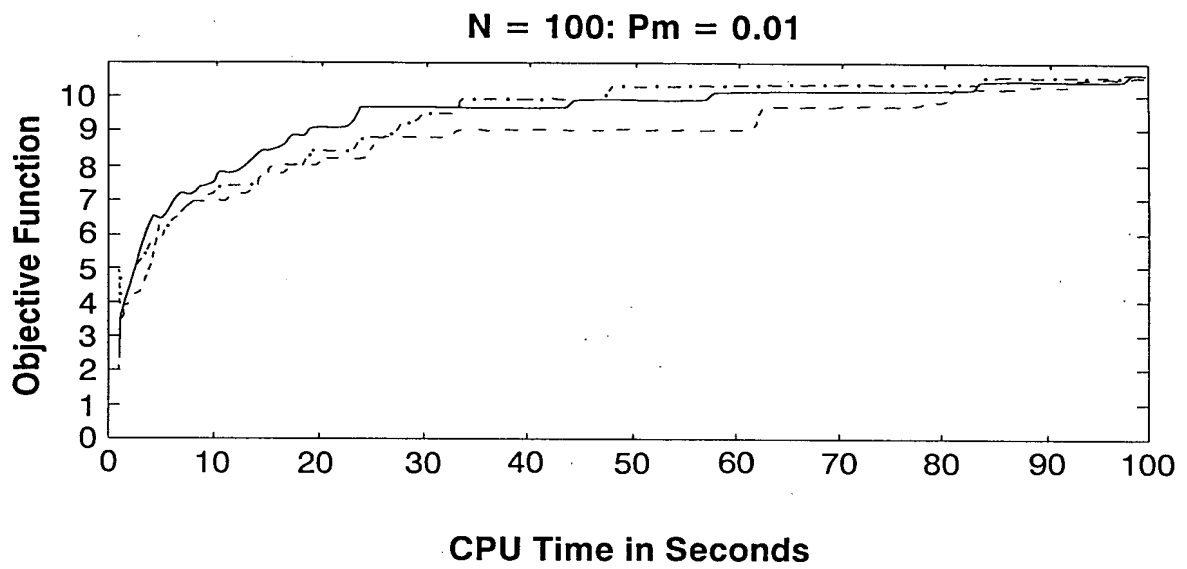


FIG. 4



The Performance of the Algorithm on a Synthetic Example

FIG. 5

```

1. Check all vertices and mark every low-level resource. The marked vertices form Frontier(1).
   l=1;
2. Repeat
   {
     2.1. Mark all resources not already included in some frontier.
     3.2. For every resource v,
         3.2.1 unmark v if  $dep(v,i)$  for some i contains
               some  $u \notin Frontier(1) \cup Frontier(2) \cup \dots \cup Frontier(i)$ .
     3.3. If more than k resources are marked, unmark at random all except k
     3.4. The marked resources constitute Frontier (i+1).
     3.5. Repeat
         {
           3.5.1. For every resource v in Frontier (i+1),
                 if any of the variables associated with v ( $z_v, l_{vj}$  etc)
                 are found to be fractional, define all of them to be integer variables.
           3.5.2. Solve the new ILP
         }
         Until no more fractional variable are found
     4. For every variable defined as an integer variable,
         convert it into a fixed value equal to its current value.
     5. i = i+1;
   }
   Until every vertex has been included in some frontier.

```

FIG. 6

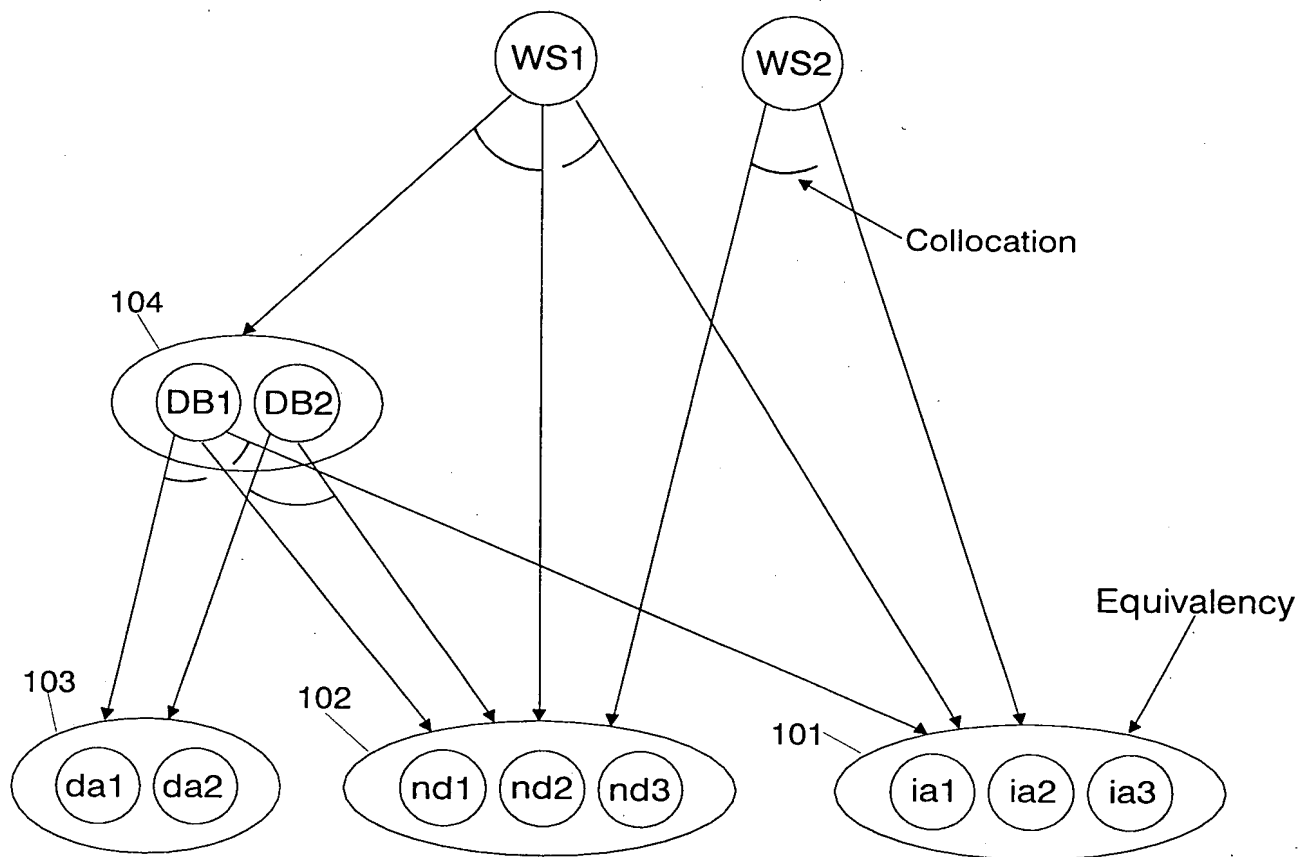


FIG. 7

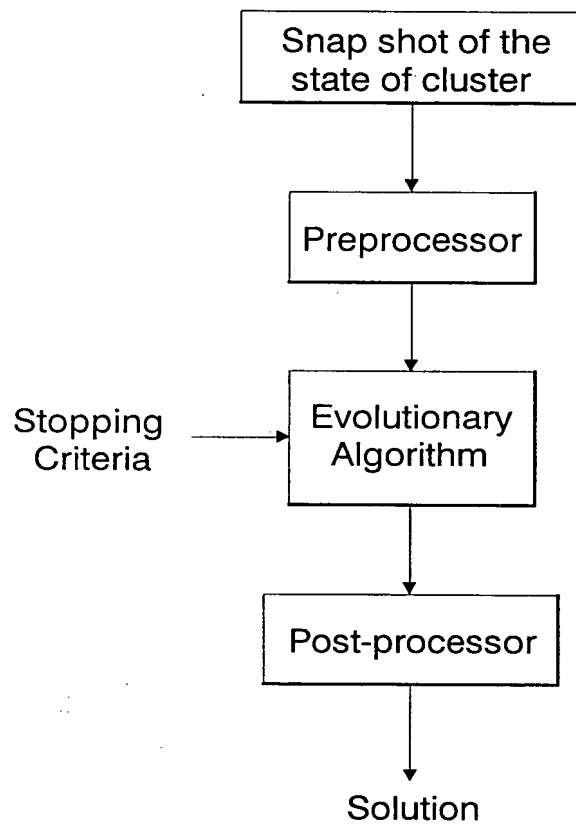


FIG. 8

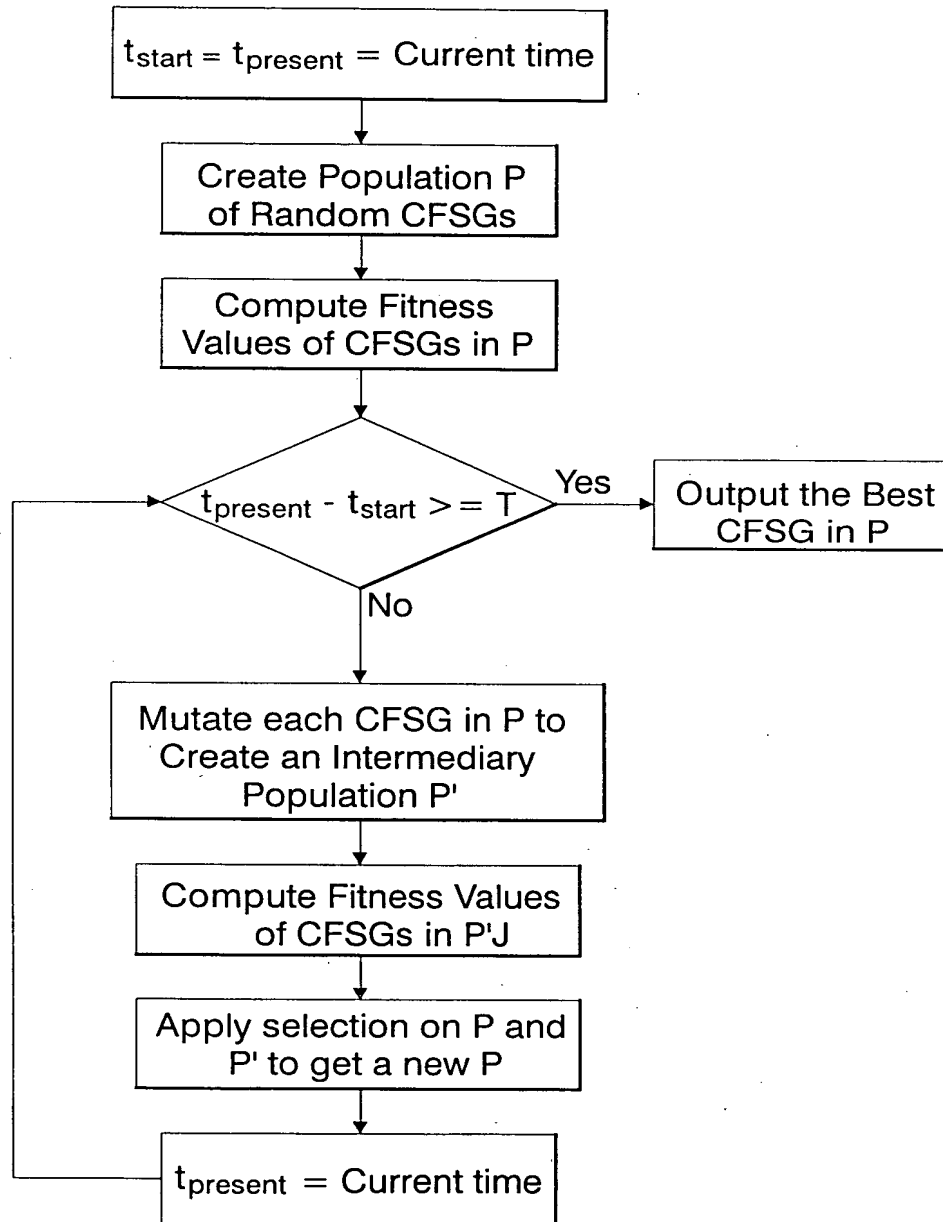


FIG. 9

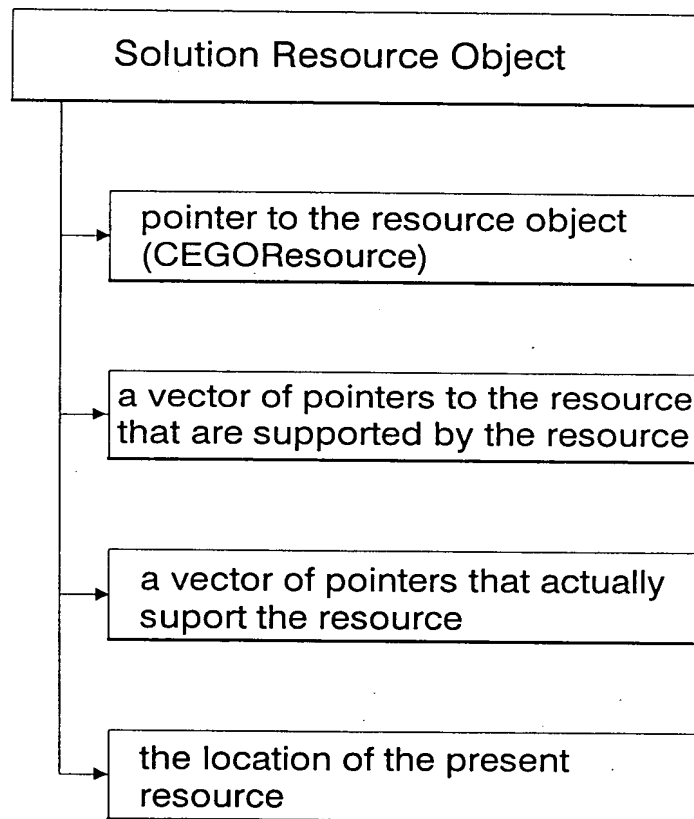


FIG. 10

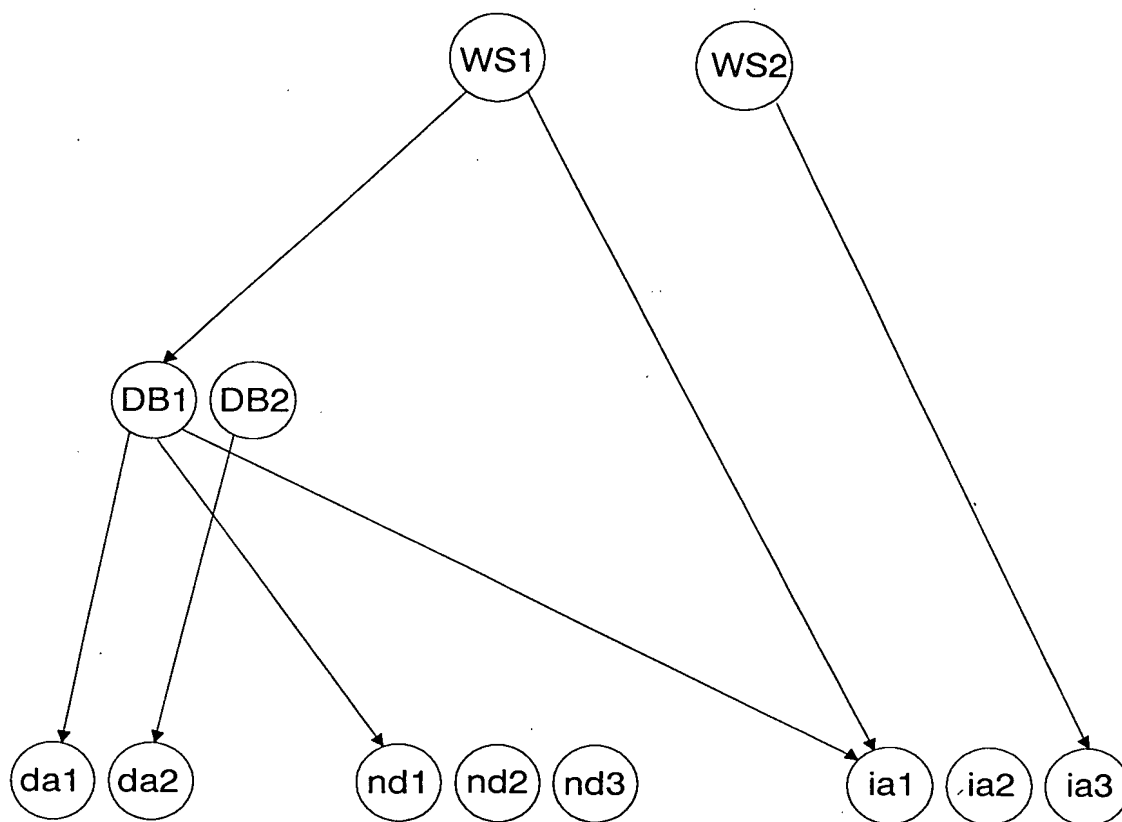


FIG. 11

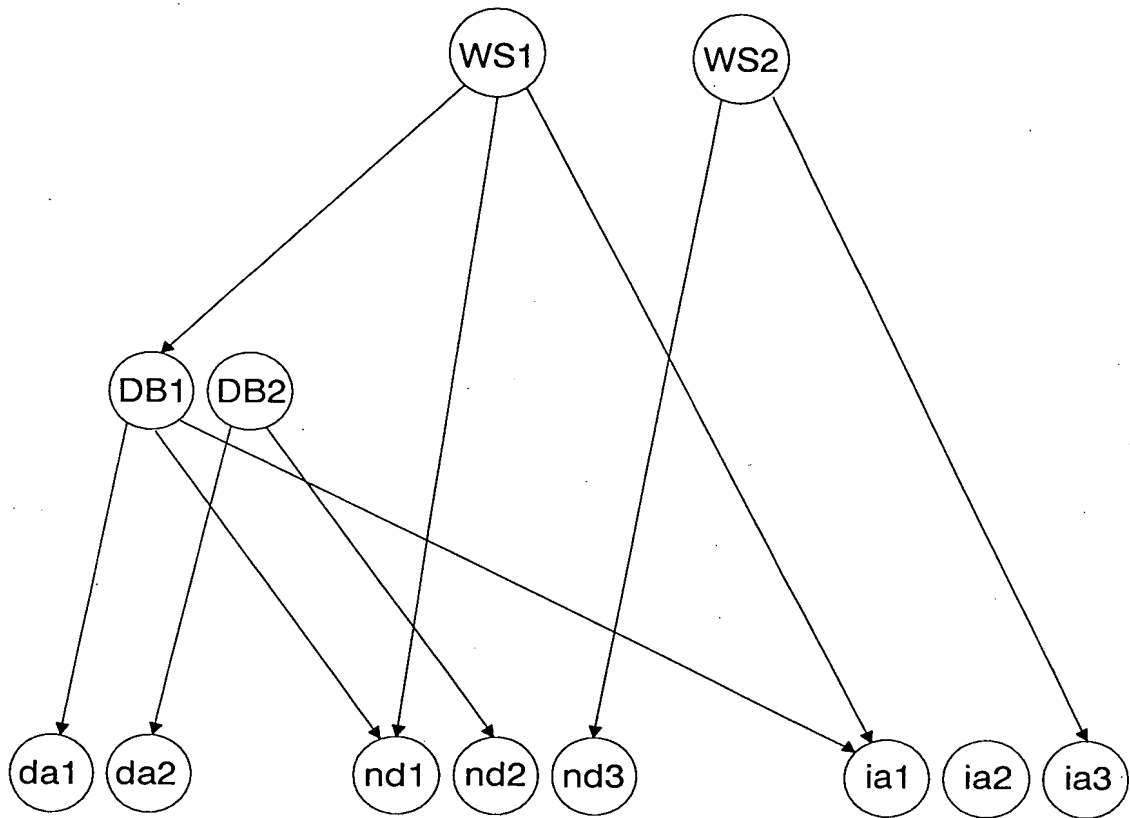


FIG. 12

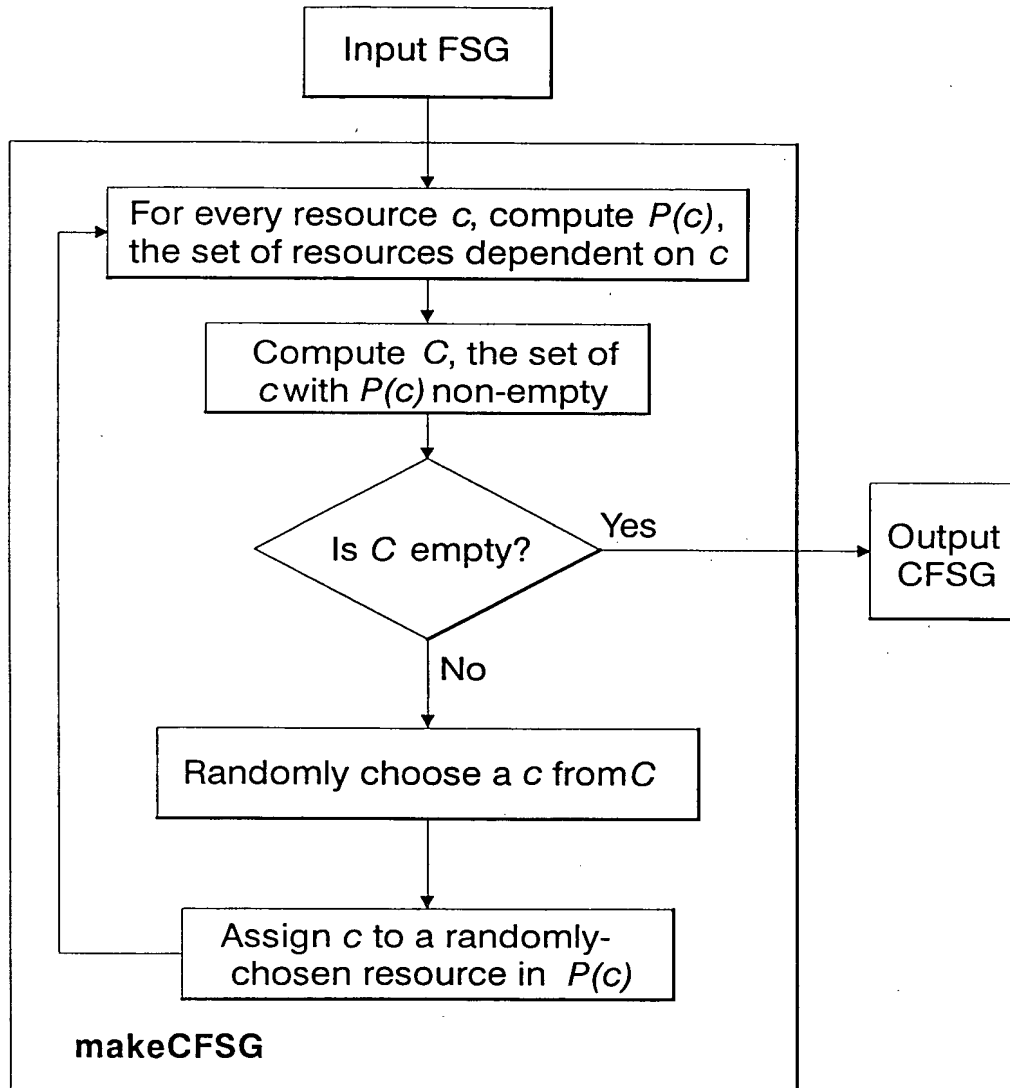


FIG. 13

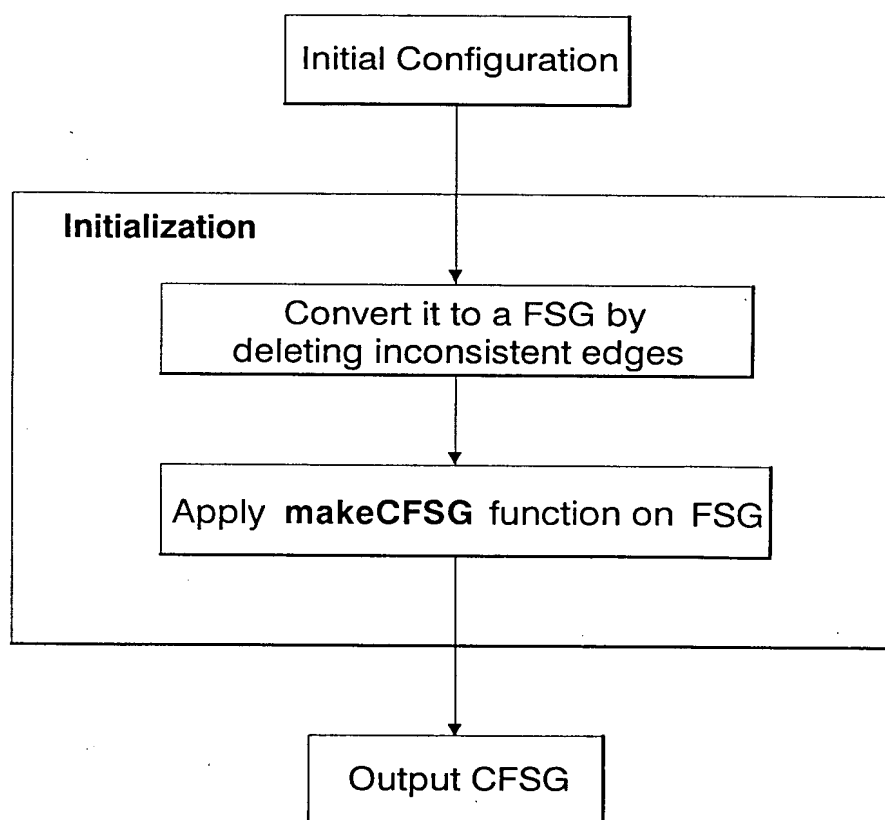


FIG. 14

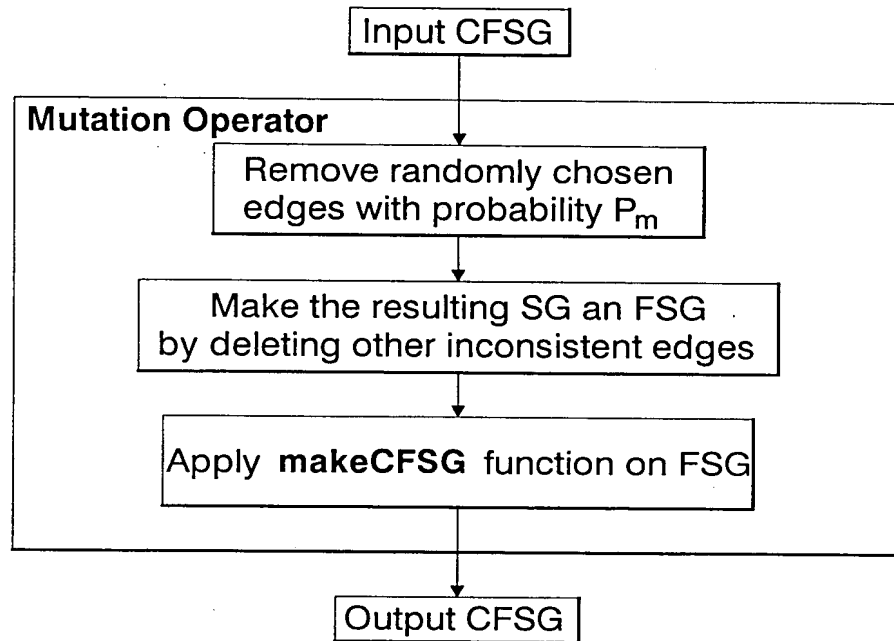


FIG. 15

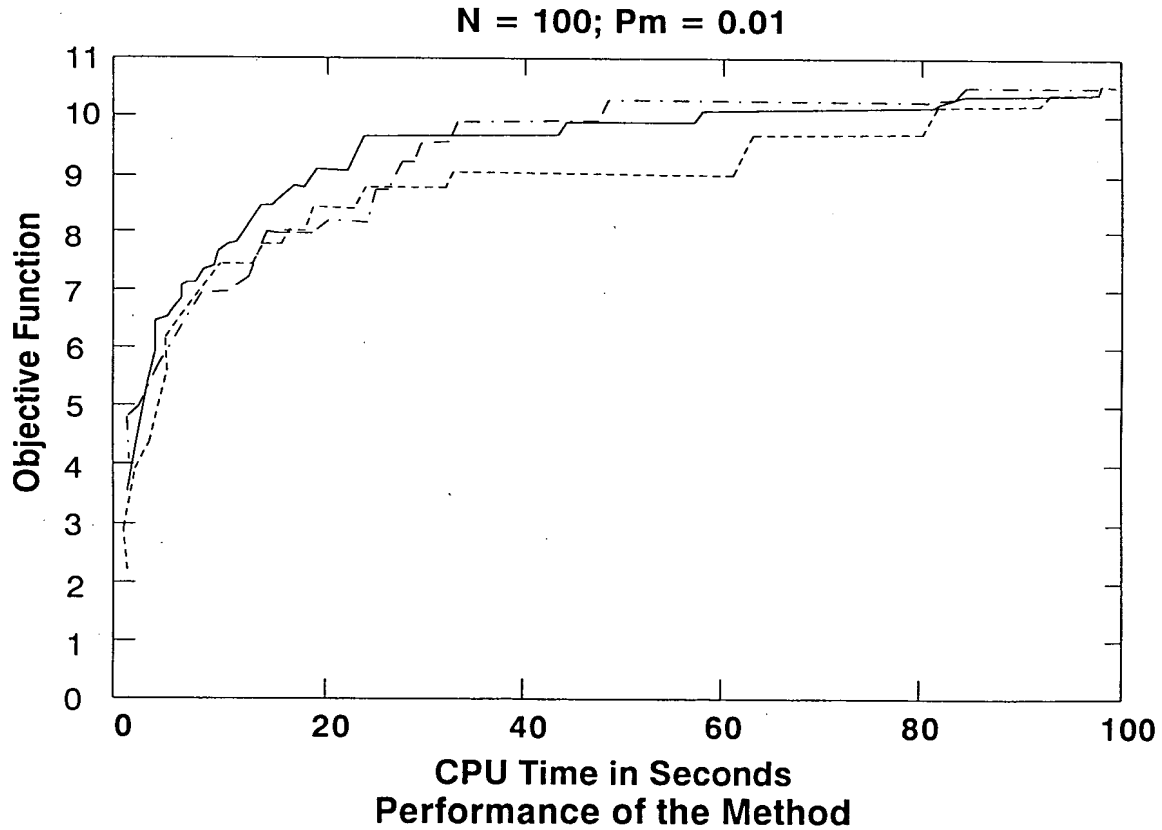


FIG. 16

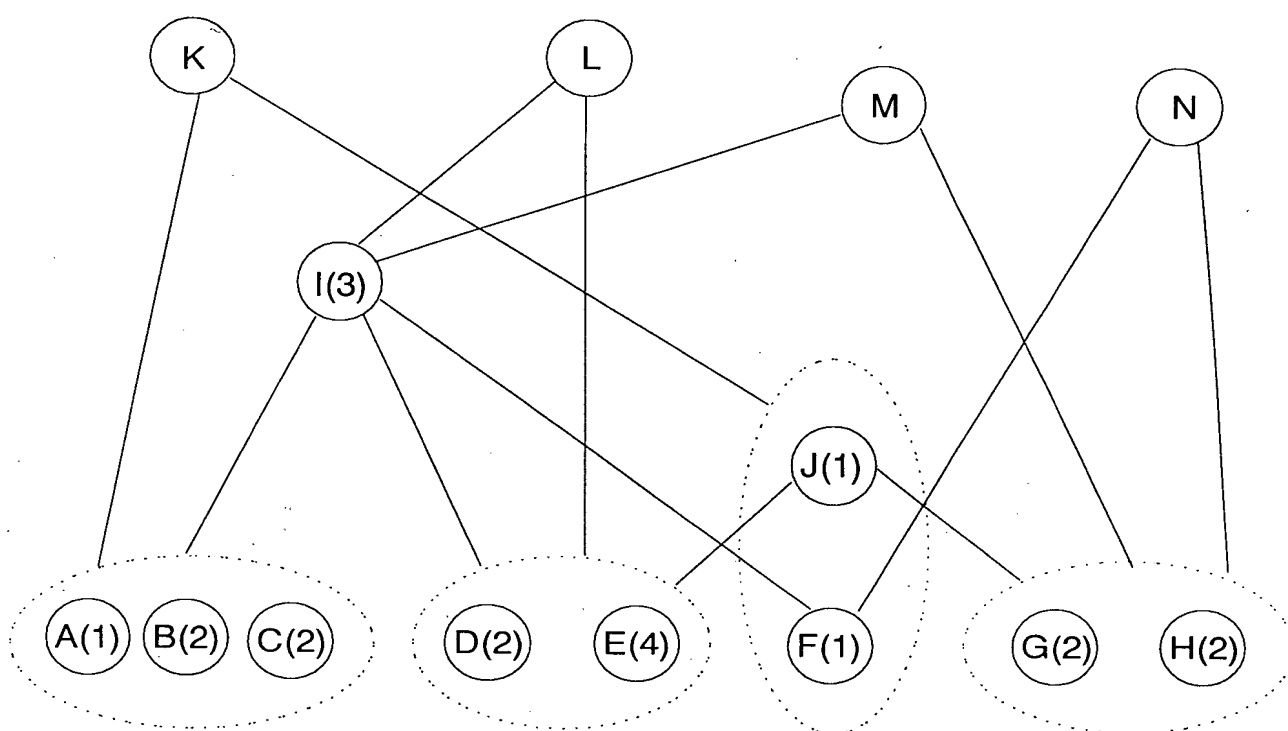


FIG. 17

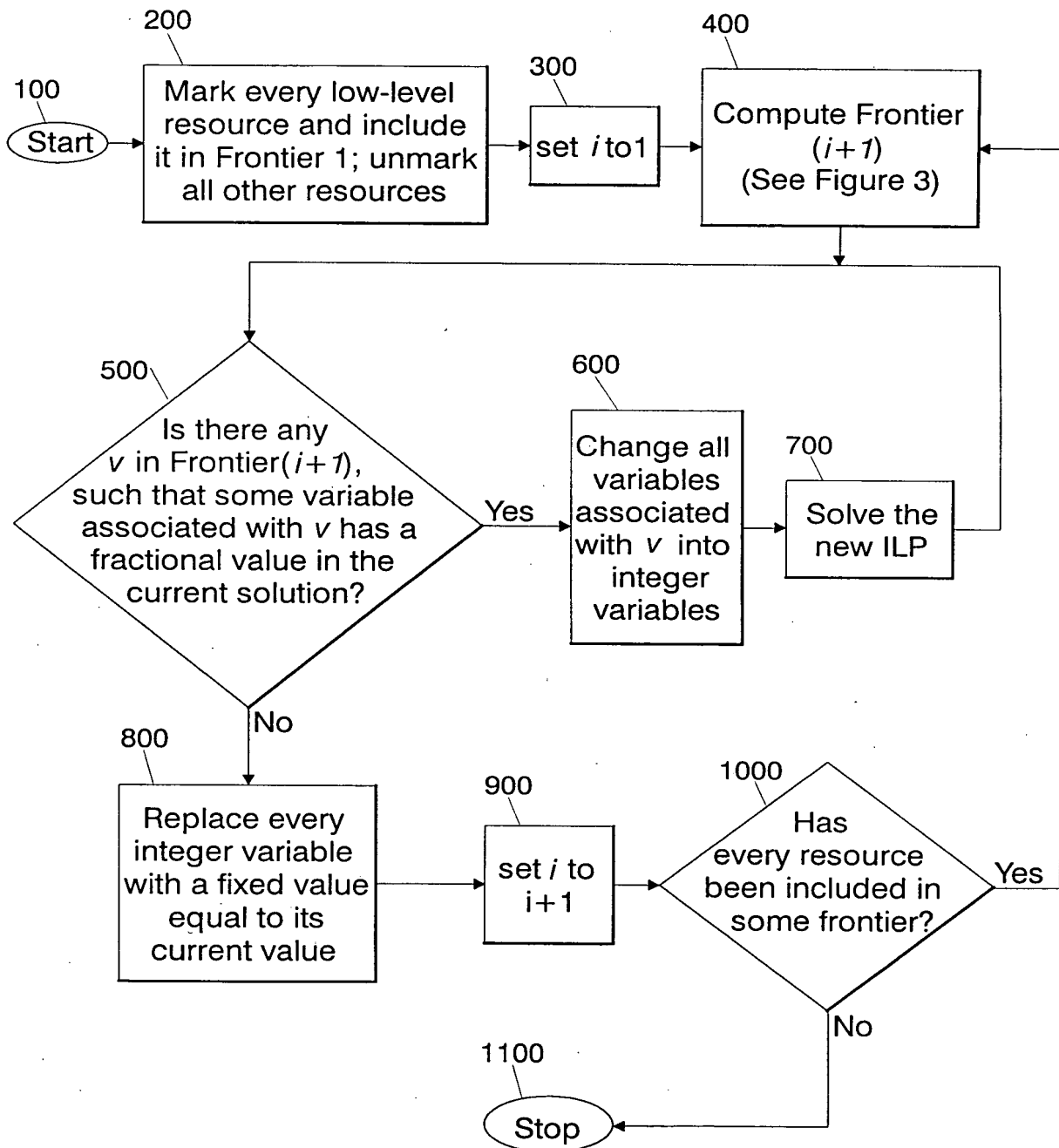


FIG. 18

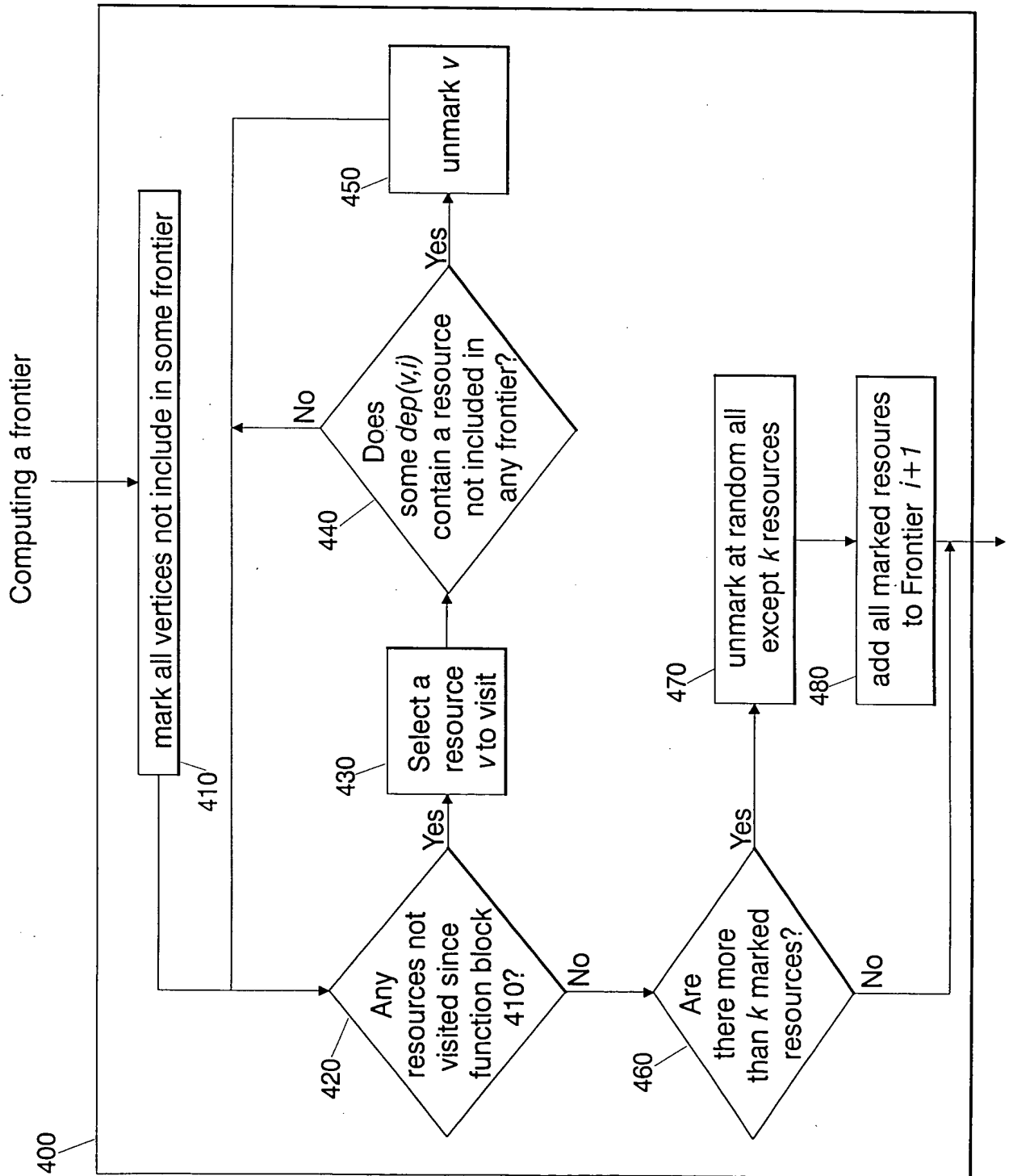


FIG. 19